

# Knee cap (patellofemoral) pain

## Information for patients

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### What is patellofemoral pain?

Patellofemoral pain is pain that comes from your kneecap. It is usually felt around the front of the knee below your knee cap although at times it can spread to the sides and occasionally to the back of the knee. Patellofemoral pain is usually caused following a recent growth spurt, putting on weight or due to muscle imbalances with flexibility or strength. These cause an increased loading of your knee cap which is not yet fully developed and pain can occur. A sudden increase in activity levels may also stress the area and the pain is nature's way of protecting the knee cap from overuse and damage.

### What are the common symptoms?

The most common symptoms of patellofemoral pain are:

- Knee pain either during or after taking part in sports, prolonged walking and/or walking up and down stairs
- Swelling/tenderness around the lower part of your knee cap
- Reduced knee strength
- Tightness with reduced flexibility of your leg muscles.

These symptoms usually appear gradually and can appear in one or both of your knees.

### Treatment advice

By following **all** of the advice below your patellofemoral pain should reduce:

- Rest from all painful activities to enable the pain and swelling to settle. It is very important to stay active though so please continue with gentle, low-impact activities (such as swimming and cycling) if they do not increase your pain
- Place some crushed ice in a damp towel and place this on the painful area for 10 minutes. Please check your skin regularly during this time- if your skin appears white or blue, stop using the ice pack at that time. Repeat this ice application every 2 – 3 hours as needed
- Start a daily stretching and strengthening programme (as detailed on the following page) to improve your muscle strength and flexibility.

1. Lie face down.

Bend your painful knee back and place your hand around your ankle. Pull your heel slowly towards your buttock until you feel the stretching on the front of your thigh.

Hold for 30 seconds and then relax.

Repeat 3 times in a row, daily.



2. Sit on the floor with your non-painful leg straight and the painful leg crossed over it, as shown.

Bring your painful knee towards your opposite shoulder until you feel a gentle stretch in your buttock. Hold for 30 seconds and then relax.

Repeat 3 times in a row, daily.



3. Lie on your back and lift your painful leg towards your chest. Place your hands behind your knee.

Gently straighten your knee until you feel a gentle stretch behind your thigh. Hold for 30 seconds and then relax.

Repeat 3 times in a row, daily.



4. Lie on your back with your knees bent.

Squeeze your buttocks together and lift your bottom off the floor pushing through your heels rather than your whole foot. Hold for 10 seconds and then return to starting position.

Repeat 10 times daily.



## Further treatment advice

Other advice that may help your knee pain is:

- Avoid sitting with your knees bent with your legs folded under you. Try sitting with your legs straight out in front of you instead
- Try to stay fit, healthy and move regularly. It is important to eat healthily and follow the recommended daily exercise guidance of 30 minutes activity each day
- Shock absorbing footwear (such as trainers) that have been designed for this purpose can help to ease the loading and stress on your knee cap
- Painkillers such as Paracetamol will help to ease your pain.

## Returning to activities

Once your knee pain has decreased and the flexibility/strength of your leg is improving you should gradually return to normal activities

This often has to be a flexible process as some days your knee may feel better than others.

It is okay to exercise when you still have a little bit of pain but only if your pain settles quickly after you finish exercising.

## Further advice

If your symptoms are not settling please contact the physiotherapy department on the details below:

Physiotherapy Team,  
Therapies Department,  
Royal Hospital for Children and Young People,  
50 Little France Crescent,  
Edinburgh  
EH16 4SA

Telephone: **0131 312 1079**

